

REMARKS

This is a full and timely response to Decision on Appeal mailed on **December 1, 2011** (the "Decision"). Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

Claim Status:

Claims 3-5 and 13-15 have been cancelled previously without prejudice or disclaimer.

By the preceding amendment, various claims have been amended. No claims are added or cancelled. Thus, claims 1, 2, 6-12 and 16-20 are currently pending for further action.

Decision on Appeal:

In the outstanding Decision, the grounds of rejection made in the final Office Action of January 14, 2009 were reviewed. Those grounds of rejection were as follows.

The first ground of rejection reviewed on appeal is the Examiner's rejection of claims 1, 2, 6-8, 10-14, 16, and 18-20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. 6,871,934 to Masuyama et al. ("Masuyama") in view of U.S. 5,673,071 to Fuse ("Fuse").<sup>1</sup>

The second ground of rejection reviewed on appeal is the Examiner's rejection of claims 9 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Masuyama in view of U.S. 6,238,112 to Girones et al. ("Girones") and further in view of U.S. 6,705,697 to Audi et al. ("Audi").

The third ground of rejection reviewed on appeal is the Examiner's rejection of claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Masuyama in view of Fuse and further in view of Girones.

All of these rejections were completely reversed by the Decision.

New Grounds of Rejection:

Under 37 C.F.R. § 41.50(b), the Decision presented a new ground of rejection against claims 1, 2, 6-12 and 16-20. These claims were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite in that the metes and bounds of the claims could not be determined, in the opinion of the Appeals panel. (Decision, p. 5).

In response, under 37 C.F.R. § 41.50(b), Applicant files this present paper to reopen prosecution with an amendment of the claims to address the new ground of rejection presented in the Decision. Accordingly, the present amendment should be remanded for consideration to the Examiner.

35 U.S.C. § 112

Again, claims 1, 2, 6-12 and 16-20 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite in that the metes and bounds of the claims could not be determined, in the opinion of the Appeals panel. (Decision, p. 5). While Applicant does not necessarily agree that any of these claims were indefinite as presented for appeal, the indicated claims have been amended herein to address the issues raised in the Decision under 35 U.S.C. § 112, second paragraph.

Following this amendment, all the remaining claims are believed to be in compliance with 35 U.S.C. § 112 and notice to that effect is respectfully requested. Specifically, the

Decision held that the phrase “a subsequent pass” made it difficult to interpret the claims. (Decision, p. 5). Consequently, this language has been deleted from the claims in the present paper. Therefore, Applicant respectfully submits that, following entry of this amendment, the rejection of claims 1, 2, 6-12 and 16-20 under § 112, second paragraph, should be reconsidered and withdrawn.

Previous Rejections:

Although no longer at issue, Applicant wishes to note the following distinction between the amended claims and the previously cited references. Claim 1 is taken as exemplary.

Claim 1 now recites:

A method of operating a printer, said printer comprising an array of dot printing elements extending in a first direction relative to a page to be printed and which prints at least a part of the page during relative movement between the array and the page, the array comprising a plurality of groups of elements with redundancy among the elements of the group, the method comprising, in respect of at least one of said groups, initially commencing printing using a subset of the elements in the group and, during the course of printing, increasing the number of elements available to print in the group;

*wherein each element newly made available to the group is initially, for a period of time, used less frequently than the existing element(s) in the group already in use; and*

wherein the number of elements in the group available to print is increased as a function of the number of firing pulses sent to the elements of the group.

(Emphasis added).

Support for the amendment to claims 1 and 11 can be found in Applicant's originally filed specification at, for example, p. 6, lines 31-34.

In this regard, previous prosecution has cited to Maruyama. In pertinent part, Maruyama teaches the following.

As shown in FIG. 4, in scans from (N-3) to (N), the front end area of a print medium is printed and only a part of the nozzle column of the print head is used, i.e., only four nozzles of nozzle No. 1-4 in FIG. 4. The line feed distance is as short as about one nozzle. Thus, for example, an area printed with dots ejected from a nozzle No. 1 in an (N-3)rd scan will be printed by nozzle number 2 in an (N-2)nd scan, by nozzle number 3 in an (N-1)st scan and by nozzle number 4 in an (N)th scan.

With the front end area printing completed at the (N)th scan, the transition area begins to be printed at an (N+1)st scan with a normal line feed distance. More specifically, starting from the (N+1)st scan, the line feed distance is increased to four nozzles. Therefore, nozzle No. 5 to 7 (marked with X), which have not been used up to the (N)th scan, are now used. At the (N+1)st scan, only the nozzles of No. 5-7 are subjected to the preliminary ejection prior to this scan. Next, at the (N+2)nd scan, since the nozzles of No. 8-10 were kept out of use in the preceding scans, these nozzles undergo the preliminary ejection prior to this scan. In this way, the preliminary ejection prior to the associated scan is continued until (N+4)th scan, at which time a nozzle of No. 16 begins to be used. *That is, since in each of the (N+1)st to (N+4)th scan, there are nozzles which have been kept out of use in the preceding scans but begin to be used in the current scan, these nozzles are subjected to the preliminary ejection prior to the start of the associated scan to make them ready to perform ejection in good condition.*

(Maruyama, col. 6, lines 1-19) (emphasis added).

Thus, Maruyama teaches that a nozzle that has not been used in preceding scans is primed, prior to a scan, so as to be ready for use, i.e., the nozzle is “subjected to the preliminary ejection prior to the start of the associated scan to make them ready to perform ejection in good condition.” (*Id.*). This is entirely different than what is claimed.

Maruyama never teaches or suggests that, once a nozzle is brought into use, it is used less frequently, for a period of time, than nozzles that were already in use. Maruyama never teaches or suggests a method “wherein each element newly made available to the group is initially, for a period of time, used less frequently than the existing element(s) in the group already in use.” (Claim 1).

Applicant believes this distinction to be at least part of the reason why all previous rejections based on Maruyama were reversed in the Decision. Thus, no new basis for rejection of the claims as amended herein based on Maruyama would be proper.

Conclusion:

In view of the preceding arguments, all claims are believed to be in condition for allowance over the references of record. Therefore, this response is believed to be a complete response to the Office Action. However, Applicant reserves the right to set forth further arguments in future papers supporting the patentability of any of the claims, including the separate patentability of the dependent claims not explicitly addressed herein. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed.

The absence of a reply to a specific rejection, issue or comment in the Office Action does not signify agreement with or concession of that rejection, issue or comment. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment. Further, for any instances in which the Examiner may wish to take Official Notice in the Office Action, Applicants expressly do not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

If the Examiner has any comments or suggestions which could place this application in better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

/Steven L. Nichols/

DATE: 30 January 2012

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